

Date: Monday, 20/04/2009 1:00:03 PM
 User: Julie Dawson

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: CLIP
Job Number	: 47294		
Estimate Number	: 11556		
P.O. Number	:	Part Number	: D30821
This Issue	: 20/04/2009 S.O. No. :	Drawing Number	: D3082 REV A
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: / / Type : PURCHASED PARTS	Drawing Revision	: A
Previous Run	: 44025	Material	:
Written By	:	Due Date	: 27/04/2009
Checked & Approved By	: <u>JUD 09.04.20</u>	Qty:	12 Um: Each
Comment	: Est: B 02.05.11 Added step 3 NG		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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C209/04/27



Comment: PURCHASING

Issue P/O: 86666

mcmaster P/N: 1722A43

09.04.09

Description: Crawford peg hooks #18612

Possible supplier: Canadian tire

2.0	18612	1722A43 C209/05/11	Clip
-----	-------	--------------------	------



Comment: Qty.: 1.0000 Each(s)/Unit Total: 6.0000 Each(s)

CLIP

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Receive & Inspect for Transit Damage

Ensure Material Release Note is attached

C209/05/09

20 mcp

4.0	QC6	DIMENSIONAL CHECK
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POSITIVE RECALL

EFFECTIVE 09.04.27 AUTH



Comment: DIMENSIONAL CHECK

RELEASED DATE 09.05.09

09.05.09

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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Comment: SMALL & MEDIUM FAB RESOURCE 1

Cut clip and drill as per dwg D3082


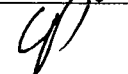
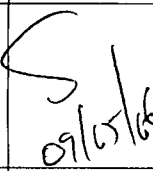
Deburr.

★ PTO
 SEE w/o CHG

FF 09/05/05

20

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
09.05.04	5	FLATTEN BOTTOM OF CLIP / DISCARD INCLUDED SCREWS 	FF	09/05/05	20	 09.05.04 JL 051 042	 09/05/06	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 20/04/2009 1:00:03 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: CLIP

Job Number: 47294

Part Number: D30821

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

09/05/06 ^{cont} (x20)

7.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.2 Steel) as per QSI 005 4.3

START TIME:

8:35

OVEN TEMPERATURE:

400°

FINISH TIME:

9:05

FL 09/05/07

(20)

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

09-05-07 (x20)

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 63

9/5/8

(20x)

SP

10.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/05/11

Job Completion



MF 09-05-11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

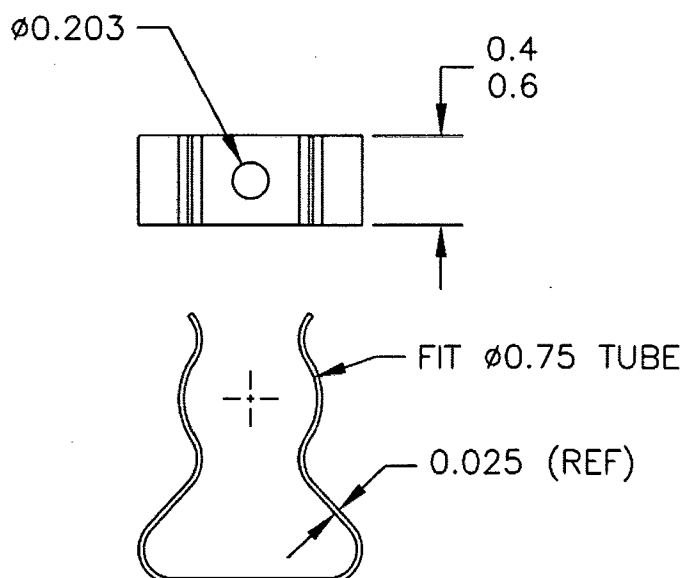
NOTE: Date & initial all entries



DESIGN <i>SP</i>	DRAWN BY <i>CF</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>A</i>	APPROVED <i>A</i>	DRAWING NO. D3082	REV. A SHEET 1 OF 1
DATE 02.01.21		TITLE CLIP	SCALE NTS
A	02.01.21	NEW ISSUE	

SPECIFICATION CONTROL DRAWING

DESCRIPTION: STEEL CLIP, $\phi 0.75$
FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
CAN MAKE FROM CRAWFORD PEG HOOKS, P/N #18612 (VENDOR: CANADIAN TIRE)
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
ALL DIMENSIONS ARE IN INCHES.



D3082-1 CLIP

RELEASED
02 01 25 *A*

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 47294

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Date: Thursday, 11/12/2008 11:54:22 AM
 User: Linda Lacelle

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : CLIP
 Job Number : 44025
 Estimate Number : 11556
 P.O. Number :
 This Issue : 11/12/2008 S.O. No. :
 Prsht Rev. : NC
 First Issue : / / Type : PURCHASED PARTS
 Previous Run : 40852
 Written By :
 Checked & Approved By :
 Comment : Est: B 02.05.11 Added step 3 NG

Part Number : D30821
 Drawing Number : D3082 REV A
 Project Number : N/A
 Drawing Revision : A
 Material :
 Due Date : 18/12/2008 Qty: 9 Um: Each

Additional Product

REFERENCE ONLY

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

PULL FROM STOCK:

9 X 1722A43 CLIPS B107659

2.0 1722A43 clip



Comment: Qty.: 1.0000 Each(s)/Unit Total: 9.0000 Each(s)
 CLIP

3.0 POWDER COATING POWDER COATING



Comment: POWDER COATING
 Powder Coat White Gloss (Ref: 4.3.5.2 Steel) as per QSI 005 4.3

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

3'-50"
 400 °F
 4'-20"

4.0 QC3 INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

5.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

ST63

Chris Provencal

From: dshepherd@dartaero.com
Sent: October 28, 2008 10:13 PM
To: Chris Provencal
Subject: Re: NCR D3082-1

I agree that the stainless steel clip from mcmaster is an acceptable deviation as long as we do a fit check to ensure that it fits and functions properly.

David

Sent from my BlackBerry device on the Rogers Wireless Network

From: "Chris Provencal" <cprovencal@dartaero.com>
Date: Tue, 28 Oct 2008 09:44:44 -0400
To: 'David Shepherd' <dshepherd@dartaero.com>
CC: 'Mike Petsche' <mpetsche@dartaero.com>; Linda Lacelle \Linda Lacelle\ <lindal@dartaero.com>
Subject: FW: NCR D3082-1

David,

Linda needs to ship a D350-589-041, we need to substitute the clip. I left a phone message regarding this yesterday, this is the original email with some attachments.

-Chris

From: Chris Provencal [mailto:cprovencal@dartaero.com]
Sent: April 8, 2008 9:30 AM
To: 'David Shepherd'
Cc: 'Mike Petsche'
Subject: NCR D3082-1

David,

44025

Our supplier of the D3082-1 Clips has proven unreliable (Canadian Tire) which perhaps explains why Boeing didn't use Canadian Tire for the new 787. Anyhow, we have none in stock and Linda searched high and low for another source. We found these (pics), which are #1-B Adjustable Clips from the Arthur L Platt Company in Milford CT (through McMaster). They are nickel plated steel, the width is in dwg tol (0.440"). The mat'l thickness is over dwg dim at 1/32" (0.025 is ref anyway). The hole is made to thread with a #10 screw, it will have to be opened to 0.203" diam. The only issue I see with these (ref pic IMG 1065) is that the base is curved (RH pic), we can flatten them but the end result is a bit wavy (LH pic) but not overly so. These have been replaced with the gas strut, so I don't think we'll need too many of these. I think they're acceptable. I think we can sign these off as acceptable with no dwg update.

Additionally they have a SS version and a Nylon-coated steel version. If we were to use the Nylon one (IMG 1067.jpg) we could avoid powder coating them; Linda is keen on that one. The coating seems fairly durable and looks/feels like powder coat. If you're OK with that one, we could sign it off as a deviation on the finish, and look at updating the dwg whenever.

-Chris

2009-04-27



Purchase Order
PO00008666

Page 1 of 1

200 Aurora Industrial Parkway
Aurora OH 44202
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada
Attention: Main Finished Goods Location

McMaster-Carr Number
5613920-01

04/27/2009

Line	Description	Ordered	Shipped
1	1722A43 Steel Tool Holder, Nickel-Plated, 5/8" to 1-1/4" Tool Diameter, 1-7/8" Projection, Packs of 10, Sold In Pk of 10	2 Packs	2
2	91251A353 Black-Oxide Alloy Steel Socket Head Cap Screw, 10-32 Thread, 2" Length, Packs of 25, Sold In Pk of 25	4 Packs	4

A11

1 - 692 - 02 03 - 86 A43 2PK 1
2 - 681 2

Certificate of compliance

This is to certify that the above items were supplied in accordance with the description and as illustrated in the catalog.

Jason Wolfe
Compliance Manager

Dart Aerospace Ltd

Assembly
Area

11

Cycle

48

Shelf

117

Documents

2

SS-R-0707

EXP

3 lbs
2 lines

FW1WBPI5
04/27/2009
14:22/14:42
059

9012052069503



DART

Purchase Order

Date Apr 27, 2009	Page 1
Purchase Order Number PO00008666	

Dart Aerospace Ltd
1270 Aberdeen St
Hawksbury, Ontario K6A 1K7
Phone: (613)632-9577
Fax: (613)632-1053

FAKED
6/10/09

Vendor Address:

McMaster-Carr Supply Co,
P.O. Box 7690
Chicago, IL 60680-7690
USA
Phone (330) 995-5500
Fax (330) 995-9600

Ship To:

Main Finished Goods Location
Dart Aerospace Ltd
1270 Aberdeen St
Hawksbury, Ontario K6A 1K7

Reference	Contact	Vendor Number	PO Date	Terms	Ship Via	Expected Arrival
		VU-MCM001	Apr 27, 2009	N30	Purolator	Apr 29, 2009

Qty. Ordered	Item Number	Description	Expected Arrival	Drop-Ship	Unit Cost	UOM	Extended Price
12.0000	1722A43 ✓	clip Comments: AS PER DWG D3082 REV. A B47294 MC MASTER P/N: 1722A43	29/04/2009	No	1.800000	Each	21.60
4.0000	91251A353 ✓	10/32 2" HEX SOCKET BO	29/04/2009	No	4.640000	4/BOX25	18.56
<div>CERTIFICATE OF CONFORMITY REQ'D UPON DELIVERY</div>							

Comments:

Tax Summary:

Entered By: CL CLAVOIE

Approved By: _____

Less: included tax	0.00
Subtotal	40.16
Total tax	0.00
Total purchase order in USD Dollars	40.16